

## Delaware Community Forestry Council

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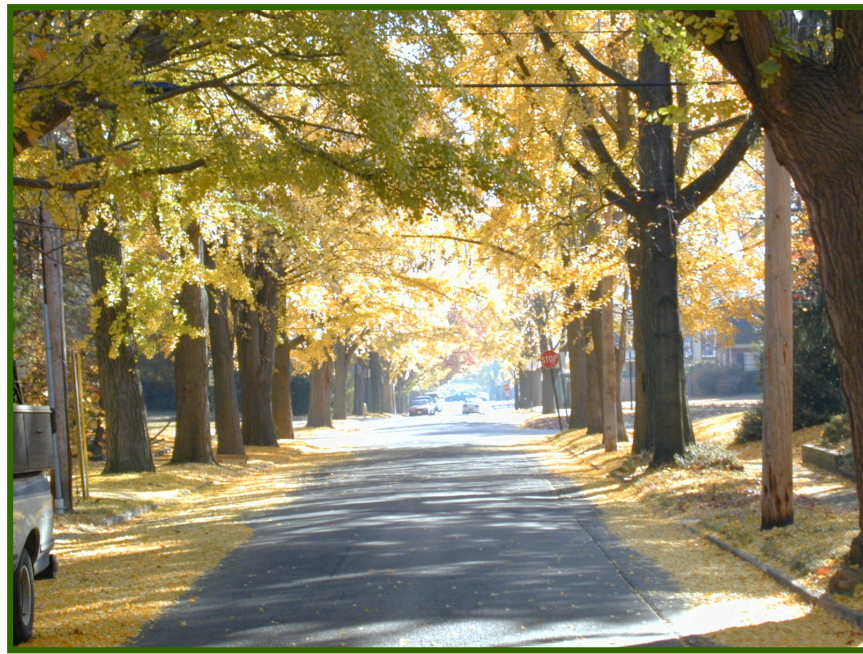
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Some of the best trees to plant are those which are hardy, resistant to potential forest pests and require little care. Want a tree with little hassle? *Arborvitae*.

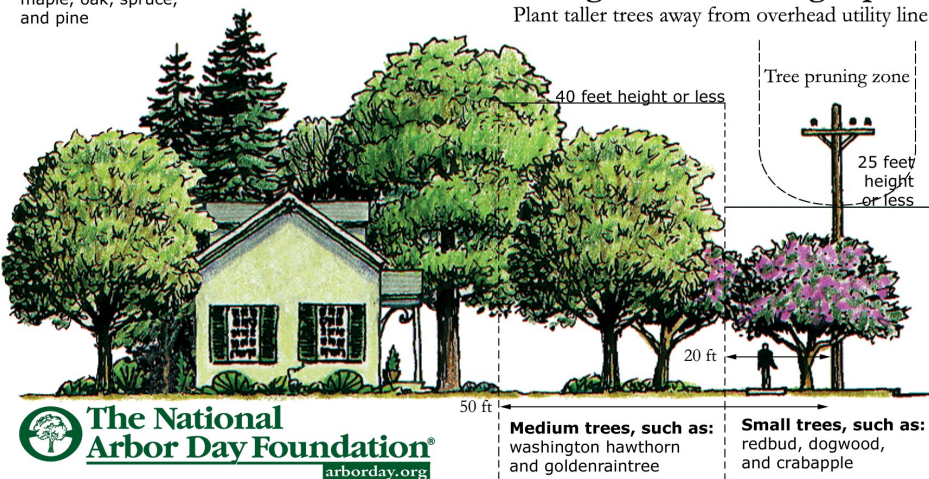
## What's the best tree to plant in Delaware?

The Arbor Day Foundation lists 10 trees (among others) on [www.arborday.org](http://www.arborday.org) that it says could do well in Delaware:

- 1) American Arborvitae: a natural choice for windbreaks that requires almost no care when used as a hedge or screen.
- 2) Colorado Blue Spruce: rated one of the most popular evergreens that grows well while young.
- 3) Norway Spruce: fastest growing spruce is an ideal windbreaker.
- 4) White Pine: a hardy, valuable tree that likes moist, well-drained soil.
- 5) Boxwood: an excellent plant to line driveways or borders.
- 6) Bar Harbor Juniper: low-growing, spreads at 10' every 10 years
- 7) Canadian Hemlock: ideal for screenings and groupings.
- 8) Hybrid Poplar: a fast-growing tree up to 5- to 8-foot a year.
- 9) Austrian Pine: a very hardy tree, withstands city or seaside, heat or drought conditions.
- 10) Weeping Willow: graceful and refined, easily recognized by its open crown of ground-sweeping branches.

Tall trees, such as:  
maple, oak, spruce,  
and pine

**Plant the right tree in the right place**  
Plant taller trees away from overhead utility lines



## COMING TOGETHER FOR A GREENER DELAWARE

### Tree-Friendly Towns

Municipalities and civic groups throughout Delaware will use funds this year from the Urban and Community Forestry Program Grant Program to beautify their communities, improve water quality and remove hazardous trees.

"This funding should go a long way to helping those who are trying to create 'tree-friendly towns' throughout Delaware," said Henry Poole, Delaware Forest Service's Senior Urban and Community Forester.

The funds were awarded over the summer to applicants who met each of four-part criteria and filed their application by May 31.

- 1) Award must be for a tree project up to \$5000.
- 2) The group must match grant with either cash or services.
- 3) Written plans with actual cost must be submitted.
- 4) Cost estimates require 3 bids.



**Urban and Community Forester Henry Poole (center) reviews a tree management plan with residents in Sussex County.**

This year's projects ranged from sprucing up a park in Ocean View, Sussex County to tree plantings around the Newark Reservoir in New Castle County. Some of the funding sources mandate that the grant can only be used toward projects that improve water resources management: such as planting trees in swales to mitigate soil erosion.

These so-called "319" funds totaled \$50,000 in the last grant cycle and are a high priority for the Urban Forestry Program. The grant committee would like to see more such projects in the future.

Is your group interested in applying for a grant?

Call 302-698-4500 or write to [Henry.Poole@state.de.us](mailto:Henry.Poole@state.de.us)

## National Arbor Day Poster Winner 2007

Nick S. of Christ the Teacher School in Bear Delaware was the state's winner in the National Arbor Day Poster Contest held this past April for 5th-graders from all over the state. For his outstanding effort, Nick won a savings bond, a tree to plant at his family's home, and an honorary tree planting at his school. The National Award went to Kaileen P. from North Carolina.



**This is the award-winning poster from Nick S. of Christ the Teacher School in Bear, Delaware.**

October, 2007

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**QUESTION:**  
What is the oldest recorded living thing ?

**ANSWER:**  
It's a tree of course!  
Back in 1964, a researcher who was looking for evidence of Ice Age glaciers in the Southwest took some core samples of bristlecone pines. To get a better measurement, he cut one of the trees down.

"Prometheus," as the tree has since been named, was determined to be 4,950 years old. This scientist had not only found the oldest living thing in the world's history: he had killed it! You can visit what's left of the tree at Great Basin National Park in Nevada.

The oldest tree alive today is called "Methuselah" ( and its exact location is secret.) That tree is around 4765 years old.

Source:  
American Society of Foresters



# Why Trees Turn Colors in the Fall *by Henry Poole*

Have you ever noticed that fall tree color varies from year to year? Or that maple tree down the street in your neighbor’s yard seems to have a more striking color than the same tree in your yard? There are several factors that cause trees to change color in the fall. Some of them we can affect, but most are up to Mother Nature herself.

Most tree leaves are green throughout the growing season due to the presence of the green pigment chlorophyll. Chlorophyll captures sunlight in the leaves to be used in the production of carbohydrates that the tree needs to grow and function. As the days get shorter, less chlorophyll is produced. When the chlorophyll fades, other pigments such as carotenoides come into view. These colors are revealed as the bright yellows of tulip poplar and golds of the hickories.

The shorter days also trigger a process where leaves are cut off from the twig by a corky layer in the leaf stem. This causes carbohydrates to remain trapped in the leaf. Some tree species use these leftover sugars to produce the pigment anthocyanin. You will notice

*“Fall color is also enhanced by the right climate and site conditions. Warm sunny days and cool nights favor brilliant fall colors.”*

this pigment in the red shades of red maple and the amber shades of sweetgum.

Fall color is also enhanced by the right climate and site conditions. Warm sunny days and cool nights favor brilliant fall colors. Cool nights slow tree respiration thereby allowing more carbohydrates to be converted into pigments by sunlight. Cloudy days or shady conditions, and extreme cold all reduce the potential for good color. Trees



on good sites with adequate soil moisture, nutrients, and sunlight are more likely to have the best fall color.

The Northeast is one of only a few places on Earth that has the right conditions for brilliant fall color. So as you are driving around your neighborhood this fall, take a moment to notice these conditions. With a little tender loving care of our trees and a little help from Mother Nature, we will have a great fall landscape.

# HISTORY OF DELAWARE’S STATE TREE: AMERICAN HOLLY (ILEX OPACA)

As far back as 2000 years ago, records indicate that the holly tree was regarded as a sacred plant to the Druids who controlled France and Britain. It was thought to keep evil spirits at bay and was exchanged as tidings of good will.

Christianity gradually replaced the more ancient religions, but the holly maintained its association with goodness and the bright red berries and green holly boughs have now played a part in winter celebrations for centuries.

During the early 20th century, the American holly’s abundance in Delaware led to a major export industry in the state. By the 1930s, Delaware was the leading holly producer in the United States. One man, Charles C. Jones, Sr., a fertilizer salesman from Milton,



**Ilex Opaca:**  
**American holly**  
**is Delaware’s**  
**state tree.**

**Milton was**  
**once known as**  
**“Holly Capital**  
**of the World.”**

Delaware, was a pioneer in this new industry. Known as "Jones, the Holly Wreath Man," Jones became the state's leading exporter, shipping holly products throughout the United States and abroad. The area around Milton became known as "The Land of Holly" and Milton was referred to as "The Holly Capital of the World". It produced more Christmas and

holiday holly wreaths and decorations than anywhere else in the world.

Delaware State Forester William S. Taber graduated from the Pennsylvania State Forest Academy in 1921 and was the author of the state's first big trees list, Delaware Trees and Delaware Trees: A Guide to the Identification of Native Tree Species. Taber's secretary Olive Wilkins, citing its beauty, worldwide renown and economic importance to Delaware, suggested to him that the American holly be adopted as Delaware's state tree.

By an Act of the General Assembly of Delaware, signed by Governor Richard C. McMullen on May 1, 1939, the American holly (*Ilex opaca*) was adopted as the official State Tree of Delaware.

# THE FORESTS AND CLIMATE CHANGE: WHAT’S THE CONNECTION?

“What does climate change have to do with forests?”

That’s the question that was posed by an influential figure in forest management this past September—and the answer could have far-reaching effects on how we think about trees and their role in the planet’s future.

Speaking to the Annual Conference of the Society of Environmental Journalists held in Stanford, California, USDA Forest Service Chief Gail Kimball outlined the effects of climate change on forests:

“Each year, the fire season comes earlier and lasts longer. Fires are burning hotter... and have become more damaging and dangerous to people and property,” Kimball said.

“Insects—both the natives and the invaders—are spreading more rapidly...They are killing more trees and making the fire danger worse.”

“Warmer winters are also affecting our water... droughty forest soils make trees more vulnerable to fire and insects.”

The “positive feedback loop” of climate change causes more severe drought, insect outbreaks and fire dangers - all of which causes more carbon in the atmosphere - leading to more climate change.

“This cycle threatens the capacity of our forests to provide... clean air and water, habitat for fish and wildlife, and opportunities for... outdoor recreation. If current trends continue, forested landscapes will be absolutely changed for future generations.. There are things we can and must do in response,” Kimball said.

Among the main objectives to achieve, Kimball listed the following:

- 1) “Protecting the existing carbon sink through forest conservation.”
- 2) “Increasing carbon sequestration through reforestation degraded land, improving forest health, and supporting sustainable forest management.”



**Forests in the United States currently offset about 10 percent of carbon emissions, according to the USDA Forest Service.**

- 3) “The use of forest biofuels for energy and the substitution of wood for manufactured products are other opportunities for managing carbon.”

Kimball pointed out what the Forest Service is already managing forests to make them more resistant to fires, insects and disease so they can better withstand the forces of climate change. In addition, forest agencies must reduce their own carbon footprint through energy conservation and adopting standards from the U.S. Green Building Council.

But most importantly, Kimball proposed a national effort to “use forests to reduce the buildup of greenhouse gases.”

The first goal of this campaign would be to “strengthen the role of America’s forests as a net carbon sink. All forests, public and private, currently take up enough carbon from the atmosphere to offset about 10 percent of America’s carbon emissions. I propose to double that amount by 2020.”

“The second goal would be to increase the amount of America’s energy that comes from forests... with

*“History will judge the leaders of our age... by how well we respond to this challenge.”*

**Gail Kimball**  
**USDA Forest Service Chief**

the technologies now becoming available we could replace as much as 15 percent of our current gasoline consumption with ethanol from wood.”

Addressing the wide-ranging impact of forests on water quality, Kimball reminded the audience that “more than half of America’s surface water originates on forestland, even though forests cover just a third of our land area....Eighteen percent of the nation’s water supply originates on national forest land, even though (it) covers just eight percent of our land area.” Even the landmark law that created the National Forest System in 1897, listed a goal of “securing favorable condition of water flows.”

In addition to protecting high mountain meadows, Kimball cited priorities for water management that include pursuing the kinds of market-based, private-public partnerships that led New York City to purchase sensitive forest land upstream and pay landowners to preserve it, rather than construct an expensive 6- to 8-billion gallon water purification system to meet EPA water quality standards.

Most important of all is the need to educate and engage the next generation: children who will be handed the baton of environmental management to “finish the race.” Through programs like Smokey Bear and the current “Kids in the Woods” initiative, the Forest Service is partnering with groups around the country to get youths away from the TV and other electronic media and into the environment. Even though 80 percent of the U.S. population live in urban areas, kids may not realize that the future could depend on the forests.